lower members are still tentative. The beds rest unconformably on Silurian rocks ranging in age from Salina to Cobleskill or younger. The revised classification follows:

- Devonian
  - Upper
    - Port Lambton (probably Portage or Chemung)
    - Huron shale (probably Genesee)
  - Middle
    - Hamilton
      - Ipperwash limestone
      - Petrolia shale
      - Widder beds
      - Olentangy shale
    - Delaware limestone
    - Onondaga limestone
      - Onondaga limestone
      - Springvale sandstone (local facies)
  - Lower
    - Oriskany sandstone
    - Helderbergian (wanting or possibly represented in the Detroit River series)

From 2 to 10 sections are given in each of the 12 counties included in the area. The paleontology has been worked out with great care and each section is accompanied by its fauna classified by horizons. Of the species given, 350 are listed from the Hamilton beds alone and 347 from the Onondaga. Largely on faunal evidence the Springvale sandstone is considered a local facies of the Onondaga instead of belonging to the Oriskany.

There is a chapter that summarizes present knowledge of the development and migrations of the Devonian faunas in this region and a chapter of bibliography on the Devonian of the eastern continental area.

W. B. W.

Central Connecticut in the Geologic Past. By JOSEPH BARRELL. Connecticut Geol. and Nat. Hist. Survey, Bull. 23. Pp. 44, figs. 9.

This bulletin is a study of the extent to which ancient geologic structure and physiographic features may be reconstructed from data now available. Technicality has been avoided in an attempt to make the report available for general reading. To further this plan the historical geology is taken up in reverse of the usual order.

A number of wholly new structure sections are of chief interest. These sections reproduce the structure for each geologic period since late Paleozoic times. There is a departure from conventional structure sections in that clouds and the landscape of the background are added. These features may be of aid to readers untrained in geology.

Many of the generalizations on the great events of geologic history apply to a much larger area than that named in the title of the report.

W. B. W.

Peat Resources of Wisconsin. By F. W. HUELS. Wisconsin Geol. Survey, Bull. 45, 1916. Pp. 274, figs. 20, pls. 22.

As neither oil, natural gas, nor coal is found in this state, special interest attaches to its peat deposits, and has resulted in their systematic examination. Part I contains a general discussion of the origin of peat, its preparation and uses. Part II gives a description of the state's peat deposits. These are limited to the drift-covered area. The quantity of peat land is placed between two and three million acres and the amount of peat between two and three billion tons. Analyses show that for the most part the peat compares favorably in quality with peats now being used extensively in Europe.

A number of companies have engaged in peat production but all have suspended operations. It seems probable that the greater part of the peat lands will be drained and reclaimed for agricultural purposes.

W. B. W.

Soils of Mississippi. By E. N. LOWE. Mississippi Geol. Survey. Pp. 220, figs. 22.

This is a preliminary dicussion of the subject and is to be followed later by a complete report. The state is divided into 9 soil areas that correspond roughly to physiographic provinces. The soil of chief geologic interest is found in a belt of loess, that extends the length of the state, and borders the Mississippi River flood plain.

An appendix to the report contains a number of soil analyses.

W. B. W.

Hudson Bay Basins and Upper Mississippi River. U.S. Geol. Survey, Water-Supply Paper, 355, 1915.

This volume is one of a series of twelve reports of measurements of stream flow in the United States during 1913. The data cover the flow of the larger streams in Minnesota draining into Hudson Bay and those of Minnesota and Wisconsin that are tributary to the Mississippi.

W. B. W.